**Arctic Tundra: Electronic devices left on standby**

Slide 1

Narrator text: Carbon is released when natural gas drilling rigs are constructed, installed and run.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is transported to treatment plants. [X] Button 2: Natural gas is burnedto create electricity . Button 3: Natural gas is cleaned and dried.Slide 2

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as natural gas is transported via pipes/ships/tankers to treatment plants. (Interesting fact)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is burned to create electricity. Button 2: Natural gas is transported to power stations. Button 3: Natural gas is cleaned and dried. [X]

Slide 3

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as natural gas is cleaned and dried.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is odorised. [X] Button 2: Natural gas is transported to homes. Button 3: Natural gas drilling rigs are constructed, installed and run..

Slide 4

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when natural gas is odorised so people can smell it and be alerted to leaks.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is transported to treatment plants. Button 2: Natural gas is transported to power stations. [X] Button 3: Natural gas is odorised..

Slide 5

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when natural gas is transported via pipes, ships and tankers to power stations in the UK.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is burned in power plants to make electricity. [X] Button 2: Electronic items and lights are left on standby. Button 3: Electricity is transported over pylons/power lines.

Slide 6

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as natural gas is burned to drive turbines, which then and produces electricity.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is cleaned and dried.. Button 2: Electronic items and lights are left on standby. Button 3: Electricity is transported over pylons/power lines. [X]

Slide 7

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as electricity is carried along pylons/power lines to homes. (Interesting fact)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Natural gas is burned in power plants to make electricity. Button 2: Electronic items are left on standby. Button 3: Natural gas is transported to treatment plants.

Slide 8

Narrator text: 15kg of carbon can be wasted in a year just from leaving one TV on standby! (Interesting fact)

Show score of questions and time taken.

**Countryside: Beef industry**

Slide 1

Narrator text: Carbon is released as trees and plants are cut down to make space for cows, and to grow their feed. (Animation)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Fertilisers are used to help grow cow feed [X] Button 2: Customers travel to shops and restaurants to buy and eat beef Button 3: Beef is transported to shops

Slide 2

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon and nitrous oxide are released from fertilisers that are used to help grow cow feed. (Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Water is pumped to provide drink for cows [X] Button 2: Vehicles are used on the farm. Button 3: The materials used to package beef are produced.

Slide 3

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when electricity pumps water from underground/rivers/reservoirs/streams/canals to provide drink for the cows and to water their feed in the fields.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Vehicles are used on the farm. [X] Button 2: Fertilisers are used to help grow cow feed. Button 3: Cows are transported to the slaughter house.

Slide 4

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when vehicles and machinery are used on the farm and fields.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Pesticides are used on cow feed.. [X] Button 2: Water is pumped to provide drink for cows. Button 3: Grazing cows pass wind.

Slide 5

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released from pesticides that are put on cow feed to stop them being damaged by pests.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Grazing cows pass wind. [X] Button 2: Customers travel to shops and restaurants to buy and eat beef. Button 3: The materials used to package beef are produced.

Slide 6

(tick or cross will appear if correct or incorrect)

Narrator text: Methane is released when grazing cows pass wind. (Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Animals are transported to the slaughter house. [X] Button 2: Beef is transported to shops. Button 3: Beef and its packaging decompose in landfill.

Slide 7

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when animals are transported to the slaughter house.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Electricity is used to power the slaughter house [X] Button 2: Pesticides are put on cow feed to stop it being damaged by pests. Button 3: Vehicles are used on the farm.

Slide 8

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as electricity powers fridges, lights, computers, heating, water and many more resources in the slaughter house.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Beef is packaged. [X] Button 2: Trees and plants are cut down to make space for cows. Button 3: Fertilisers are used to help grow cow feed.

Slide 9

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when the materials used to package beef are sourced and made. Carbon is then released when the plastic bottles are packaged.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Beef is transported to the shops and restaurants. [X] Button 2: Water is pumped to provide drink for cows. Button 3: Grazing cows pass wind.

Slide 10

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when beef is transported to the shops and restaurants it is sold in.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Electricity powers shops and restaurants [X] Button 2: Pesticides are put on cow feed to stop it being damaged by pests. Button 3: Beef and its packaging decompose inlandfill.

Slide 11

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as electricity powers fridges, lights, computers, heating, water and many more resources in the shops and restaurants.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Customers travel to shops and restaurants [X] Button 2: Vehicles are used on the farm . Button 3: The materials used to package beef are sourced and produced.

Slide 12

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as customers travel to the shops and restaurants to buy beef.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Beef and its packaging decompose in landfill. [X] Button 2: Trees and plants are cut down to make space for cows. Button 3: Animals are transported to the slaughter house.

Slide 13

(tick or cross will appear if correct or incorrect)

Narrator text: If beef and its packaging is thrown into general waste, methane is released as they decompose in landfill.

Show score of questions and time taken.

**Ocean: Plastic bottle**

Slide 1

Narrator text: Carbon is released as oil drilling rigs are constructed, installed and run. (NO ANIMATION)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Oil is transported to treatment plants [X] Button 2: Plastic bottles are packaged. Button 3: Electricity is used in shops and restaurants selling plastic bottles.

Slide 2

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as oil is transported via pipes and ships to treatment plants. (ANIMATION OF SHIP MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Empty bottles are transported to a bottling plant. Button 2: Electricity is used in shops and restaurants selling plastic bottles. Button 3: Oil is cleaned. [X]

Slide 3

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as the oil is cleaned. (NO ANIMATION)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Plastic bottles decompose in landfill. Button 2: Oil drilling rigs are constructed, installed and run. Button 3: Oil is transported to bottle makers. [X]

Slide 4

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when the oil is transported via pipes, ships, rail and/or tankers to bottle makers. (ANIMATION OF OIL TRUCK MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Oil is cleaned. Button 2: Oil is formed into plastic bottles and lids. [X] Button 3: Oil is transported to treatment plants.

Slide 5

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when oil is made into plastic bottles and lids. (ANIMATION OF ELECTRICITY BEING USED IN FACTORY)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Plastic bottles are transported to bottling plants. [X] Button 2: Plastic bottles are transported to shops and restaurants. Button 3: Plastic bottles decompose inlandfill.

Slide 6

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when bottles are transported to a bottling plant. (ANIMATION OF CONTAINER TRUCK MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Oil is cleaned. Button 2: Plastic bottles are packaged. button 3: Machines fill plastic bottles with liquid. [X]

Slide 7

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when machines fill plastic bottles with liquid. (ANIMATION OF CONVEYOR BELT)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Plastic bottles are packaged. [X] Button 2: Electricity is used in shops and restaurants selling plastic bottles. Button 3: Oil is transported to treatment plants.

Slide 8

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when the materials used to package plastic bottles are sourced and made. Carbon is then released when the plastic bottles are packaged. (ANIMATION OF CONVEYOR BELT)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Oil is transported to treatment plants. Button 2: Plastic bottles are transported to shops and restaurants. [X] Button 3: Plastic bottles are transported to treatment plant.

Slide 9

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when plastic bottles are transported to restaurants and shops. (ANIMATION OF CONTAINER TRUCK MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Electricity is used to power resources in the shops and restaurants. [X] Button 2: Oil drilling rigs are constructed, installed and run. Button 3: Plastic bottles decompose in landfill.

Slide 10

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as electricity power fridges, lights, computers, heating, water and many more resources in the shops and restaurants. (NO ANIMATION)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Machines fill plastic bottles with liquid. Button 2: Oil drilling rigs are constructed, installed and run. Button 3: Customers travel to shops and restaurants to buy plastic bottles. [X]

Slide 11

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as customers travel to shops and restaurants to buy plastic bottles. ( ANIMATION OF CAR MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Plastic bottles decompose in landfill. [X] Button 2: Transportation of the oil to treatment plants Button 3: Drilling rigs are constructed, installed and run.

Slide 12

(tick or cross will appear if correct or incorrect)

Narrator text: If plastic bottles are thrown into general waste, methane is released as they decompose in landfill.

. (Interesting fact) (NO ANIMATION)

Show score of questions and time taken.

**Rainforest: Mobile phones**

Slide 1

Narrator text: Carbon released as mines are constructed, installed and run to extract raw materials. (NO ANIMATION)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1:Mobile phones are packaged. Button 2: Raw materials are transported to factories. [X] Button 3:. Electricity is used in phone shops.

Slide 2

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as raw materials are transported to factories in China, Taiwan, Japan or Korea (ANIMATION OF CONTAINER TRUCK MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Raw materials are made into phone parts. [X] Button 2: Mines are constructed, installed and run. Button 3: Customers travel to the phone shop.

Slide 3

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when raw materials are made into usable phone parts (SPARKING ELECTRICITY POLE)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Unwanted/broken phones decompose in landfill. Button 2: Phones are transported to factories. Button 3: Mobile phones are packaged. [X]

Slide 4

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when the materials used to package mobile phones are sourced and made. Carbon is then released when the plastic bottles are packaged..(NO ANIMATION )

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Raw materials are transported to factories. Button 2: Mobile phones are transported to the shops. [X] Button 3: Electricity is used to charge mobile phone.

Slide 5

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as mobile phones are transported to phone shops. (ANIMATION OF CONTAINER TRUCK MOVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Electricity is used to power phone shops. [X] Button 2: Mines are constructed, installed and run Button 3: Mobile phones are packaged.

Slide 6

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as electricity powers lights, computers, heating, water and many more resources in phone shops. ( NO ANIMATION)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Raw materials are transported to factories. Button 2: Raw materials are made into phone parts. Button 3: Customers travel to the phone shop. [X]

Slide 7

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released as customers travel to the phone shop.(ANIMATION OF CAR DRIVING)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Unwanted/broken phones decompose in landfill. Button 2: Electricity is used to charge mobile phone. [X] Button 3: Mines are constructed, installed and run.Slide 8

(tick or cross will appear if correct or incorrect)

Narrator text: Carbon is released when electricity is used every time the mobile phone is charged(NO ANIMATION)

Interesting fact: Once your phone is fully charged, switch the charger off at the wall to avoid wasting electricity.

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Button 1: Raw materials are made into phone parts. Button 2: Customers travel to the phone shop. Button 3: Unwanted/broken phones decompose in landfill. [X]

Slide 9

(tick or cross will appear if correct or incorrect)

Narrator text: If unwanted or broken phones are thrown into general waste, methane is released as they decompose in landfill. If phones are not recycled, raw materials continue to be drilled/mined. (NO ANIMATION)

(Will appear after information text has been read) Tap one of the buttons below to select which step you think comes next!

Show score of questions and time taken.

**In-Game Facts**

Arctic Tundra

Step 5 fact: In the UK natural gas has almost run out, so it is imported from further away

Step 7 fact: 10% of electricity is wasted along metal pylons

Step 8 fact: 9-16% of the electricity consumed in homes is used to power devices left on standby. What a waste!

Any time fact: The Arctic is estimated to hold the world's largest remaining untapped gas reserves

Any time fact: Permafrost is the frozen layer of soil in the ground of the tundra; it is melting because of climate change. Melted water and rainfall then soaks right through the soil so there are less water soruces for the animals.Any time fact: Some scientists believe that at this rate the Arctic could be ice-free by 2030 or even earlier!

Ocean

Step 12 fact: Methane is 23 times more harmful to the environment than carbon.

Any time fact: London alone drinks 2 million plastic bottles of water daily (and that’s just water!)

Any time fact: Warming of the seas is causing coral to bleach and animals to move to cooler waters.

Any time fact: The ocean is absorbing more CO2 making the ocean more acidic. Acidic oceans have less calcium carbonate, which is used to produce/maintain shells of crabs, mussels and clams.

Rainforest

Step 1 fact: Mining takes place in rainforest and results in their destruction.

Step 1 fact: When trees are cut down the carbon they store is released into the atmosphere

Step 9 fact: 80% of a phone’s carbon footprint happened before you turned it on for the first time.

Any time fact: Temperatures increasing and a lack of rainfall can cause drought in a rainforest.. This can lead to forest fires, which then releases more carbon into the atmosphere.

British Countryside

Step 2 fact: Carbon is also released when electricity is generated to produce pesticides

Step 3 fact: Nitrous oxide is 300 times more harmful to the environment than carbon

Step 6 fact: Methane is 23 times more harmful to the environment than carbon

Step 10 fact: Sometimes beef is flown over from a different country. Carbon emissions are much higher in the air than on the road or sea.

Any time fact: 2.1 million cattle are used for food annually in the UK

Any time fact: In 2015, overall UK agriculture released an estimated 49.1 million tonnes of greenhouse gas into the atmosphere

Any time fact: If the same level of greenhouse gases are emitted this century, there could be up to 1.9m rise in sea levels

Any time fact: A 1m rise in sea level would see most of Bangladesh, Vietnam, Norway and the Maldives underwater